

1. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-9x - 4} - \sqrt{2x + 6} = 0$$

- A. $x_1 \in [-3.1, -2.7]$ and $x_2 \in [-3.44, 0.56]$
 - B. $x_1 \in [-1.5, -0.2]$ and $x_2 \in [-3.44, 0.56]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x \in [-1.5, -0.2]$
 - E. $x \in [-0.3, 3.1]$
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2. What is the domain of the function below?

$$f(x) = \sqrt[4]{-4x - 6}$$

- A. $(-\infty, \infty)$
 - B. $[a, \infty)$, where $a \in [-2.7, -1.18]$
 - C. $[a, \infty)$, where $a \in [-0.7, -0.39]$
 - D. $(-\infty, a]$, where $a \in [-1.8, -1.31]$
 - E. $(-\infty, a]$, where $a \in [-1.12, -0.53]$
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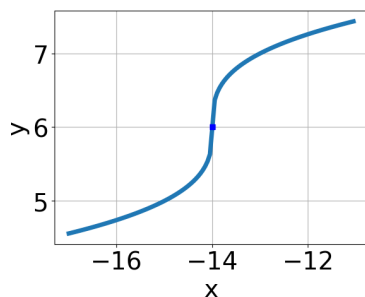
3. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{45x^2 + 20} - \sqrt{-65x} = 0$$

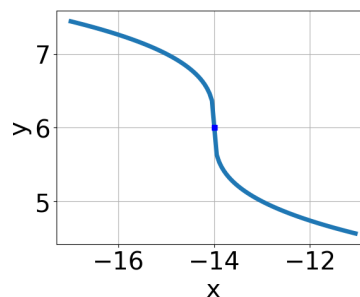
- A. $x_1 \in [0.44, 1.88]$ and $x_2 \in [0.6, 3.1]$
- B. $x \in [-0.67, -0.35]$
- C. $x_1 \in [-1.79, -0.82]$ and $x_2 \in [-1.4, 0.3]$
- D. $x \in [-1.79, -0.82]$
- E. All solutions lead to invalid or complex values in the equation.

4. Choose the graph of the equation below.

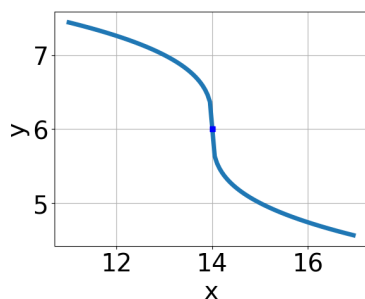
$$f(x) = -\sqrt[3]{x - 14} + 6$$



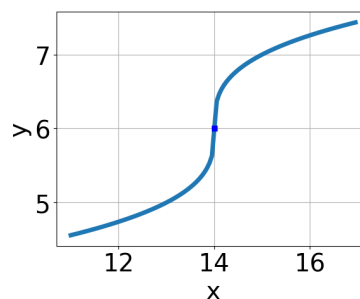
A.



C.



B.



D.

E. None of the above.

5. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-18x^2 + 49} - \sqrt{-49x} = 0$$

A. $x \in [-1.7, 0.4]$

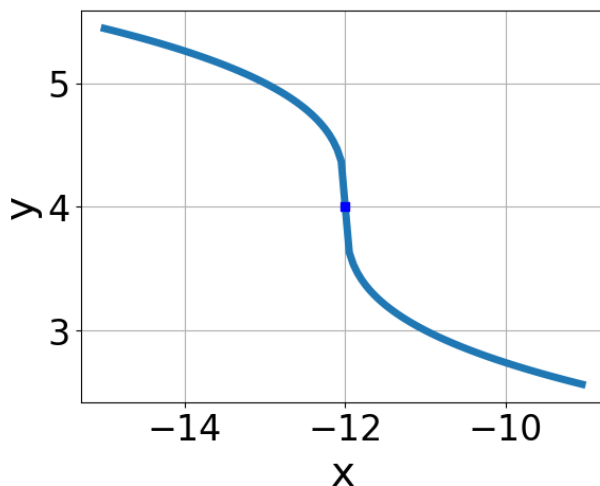
B. All solutions lead to invalid or complex values in the equation.

C. $x \in [2.3, 3.8]$

D. $x_1 \in [-1.7, 0.4]$ and $x_2 \in [1.5, 6.5]$

E. $x_1 \in [-0.3, 3.2]$ and $x_2 \in [1.5, 6.5]$

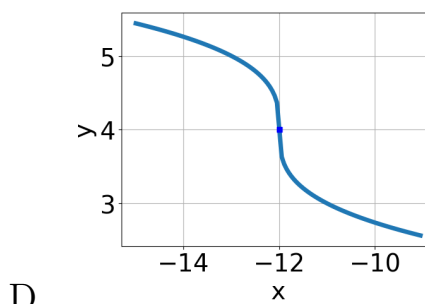
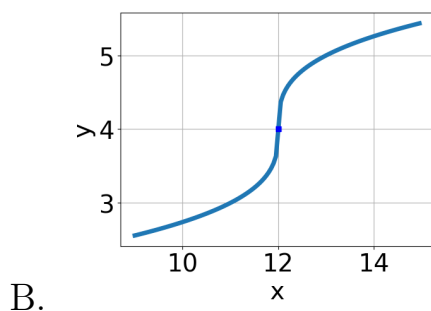
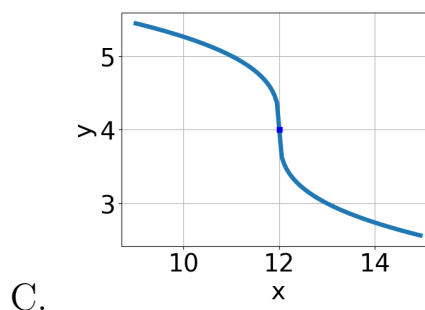
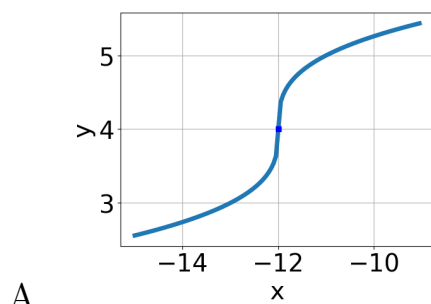
6. Choose the equation of the function graphed below.



- A. $f(x) = \sqrt[3]{x+12} + 4$
 B. $f(x) = -\sqrt[3]{x+12} + 4$
 C. $f(x) = \sqrt[3]{x-12} + 4$
 D. $f(x) = -\sqrt[3]{x-12} + 4$
 E. None of the above

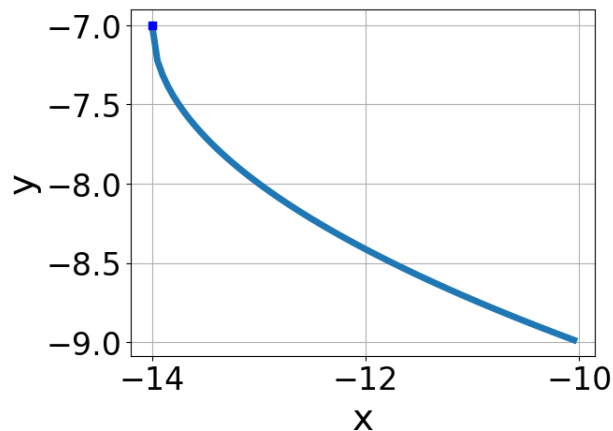
7. Choose the graph of the equation below.

$$f(x) = \sqrt[3]{x-12} + 4$$



E. None of the above.

8. Choose the equation of the function graphed below.



- A. $f(x) = \sqrt[3]{x-14} - 7$
 - B. $f(x) = -\sqrt[3]{x-14} - 7$
 - C. $f(x) = -\sqrt[3]{x+14} - 7$
 - D. $f(x) = \sqrt[3]{x+14} - 7$
 - E. None of the above
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9. What is the domain of the function below?

$$f(x) = \sqrt[5]{3x+7}$$

- A. The domain is $[a, \infty)$, where $a \in [-0.5, 1]$
 - B. The domain is $(-\infty, a]$, where $a \in [-0.7, 0.9]$
 - C. The domain is $(-\infty, a]$, where $a \in [-5.8, -0.6]$
 - D. The domain is $[a, \infty)$, where $a \in [-2.9, -1.3]$
 - E. $(-\infty, \infty)$
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10. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-9x - 9} - \sqrt{-4x - 6} = 0$$

- A. $x_1 \in [-1.15, -0.99]$ and $x_2 \in [-0.73, -0.58]$
 - B. $x \in [-0.78, -0.39]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x \in [-3.16, -2.81]$
 - E. $x_1 \in [-2.25, -1.35]$ and $x_2 \in [-1.14, -0.7]$
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